



# MI FluFocus

## Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology  
Bureau of Laboratories

Michigan Department  
of Community Health



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### New updates in this issue:

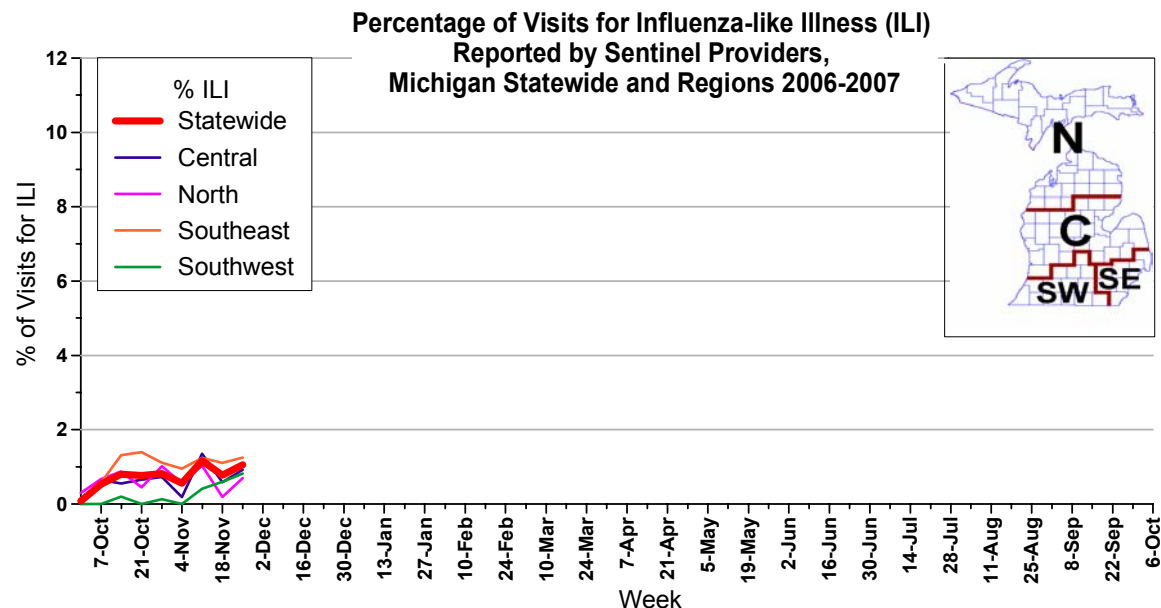
- **Michigan Surveillance:** First MDCH lab-confirmed case of the 2006-2007 season.
- **National Surveillance:** Overall influenza activity is low with regional activity in the South.
- **Avian Influenza:** Indonesia announces 57<sup>th</sup> death; Poultry outbreak in South Korea.

**Michigan Disease Surveillance System:** The last two weeks have seen a spike and a drop in flu-like illness reports. These minor weekly changes can be explained by variations in reporting. These reports are likely to continue fluctuating in this manner over the next few weeks. The current flu-like illness reported levels, however, are comparable to that seen at this time last year.

**Emergency Department Surveillance:** Emergency department visits due to constitutional and respiratory complaints have seen an increase in the last couple of weeks. These levels are slightly higher but still consistent with levels seen at this time last year. Three constitutional alerts in Regions 1(1) and 5(2) and three respiratory alerts in Regions 1(1), 3(1) and 8(1) were generated in the past two weeks.

**Over-the-Counter Product Surveillance:** OTC product sales seem to reflect the slight increase in activity seen in the past couple of weeks. Most sales remained relatively steady with adult liquid cold relief, cough/cold and children's electrolytes seeing a slight increase, while pediatric anti-fever, thermometers and chest rubs show a slight decrease. Pediatric cold relief and nasal products remained steady. However, all eight indicators levels are comparable to those seen at this time last year.

**Sentinel Surveillance (as of November 30, 2006):** During the week ending November 25, 2006, the proportion of visits due to influenza-like illness (ILI) remained relatively unchanged from last week at 1.1 % of all visits, representing 68 cases of ILI out of 6457 total patient visits; thirty-one sentinels provided data for this report. The percentage of visits due to ILI in each of the four surveillance regions was 0.9%, Central; 0.7% North; 1.2%, Southeast; 0.8%, Southwest. Note that these rates may change as additional reports are received.



As part of pandemic influenza preparedness, CDC and MDCH highly encourage and recommend year-round participation from all sentinel providers. New practices are encouraged to join influenza sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or [potterr1@michigan.gov](mailto:potterr1@michigan.gov) for more information.

**Laboratory Surveillance (as of November 30):** On November 17, the MDCH Laboratory reported its first culture-confirmed influenza case of the year (see press release at <http://www.michigan.gov/mdch/0,1607,7-132-8347-156652--,00.html>). For the 2006-2007 influenza season, there have been three culture-confirmed cases from the MDCH Laboratory, two (one A/H1N1 and one B) from southeast Michigan (Region 1) and one (A/H1N1) from south central Michigan (Region 1). Two of the sentinel laboratories in southeast Michigan are reporting low numbers of positive influenza tests. The majority of the 16 sentinel laboratories are reporting low levels of parainfluenza and respiratory syncytial viruses.

\*\*\*As a reminder, the positive predictive value of influenza rapid tests decreases during times of low influenza prevalence. MDCH suggests that during periods of low influenza activity in your community, all positive rapid tests results be confirmed by sending in a specimen for viral culture; this can be arranged through your local health department.

**Influenza-Associated Pediatric Mortality (as of November 30):** For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan.

\*\*\*Reminder: The CDC has asked all states to continue to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child less than 18 years of age resulting from a clinically compatible illness confirmed to be influenza by an appropriate laboratory or rapid diagnostic test, but also unexplained death with evidence of an infectious process in a child. Refer to [http://www.michigan.gov/documents/fluletter\\_107562\\_7.pdf](http://www.michigan.gov/documents/fluletter_107562_7.pdf) for the complete protocol. It is important to immediately call or fax information to MDCH to ensure that appropriate clinical specimens can be obtained.

**Congregate Settings Outbreaks (as of November 30):** No reports were received during the past reporting week. There have been no reports of congregate influenza outbreaks to MDCH for the 2006-2007 influenza season.

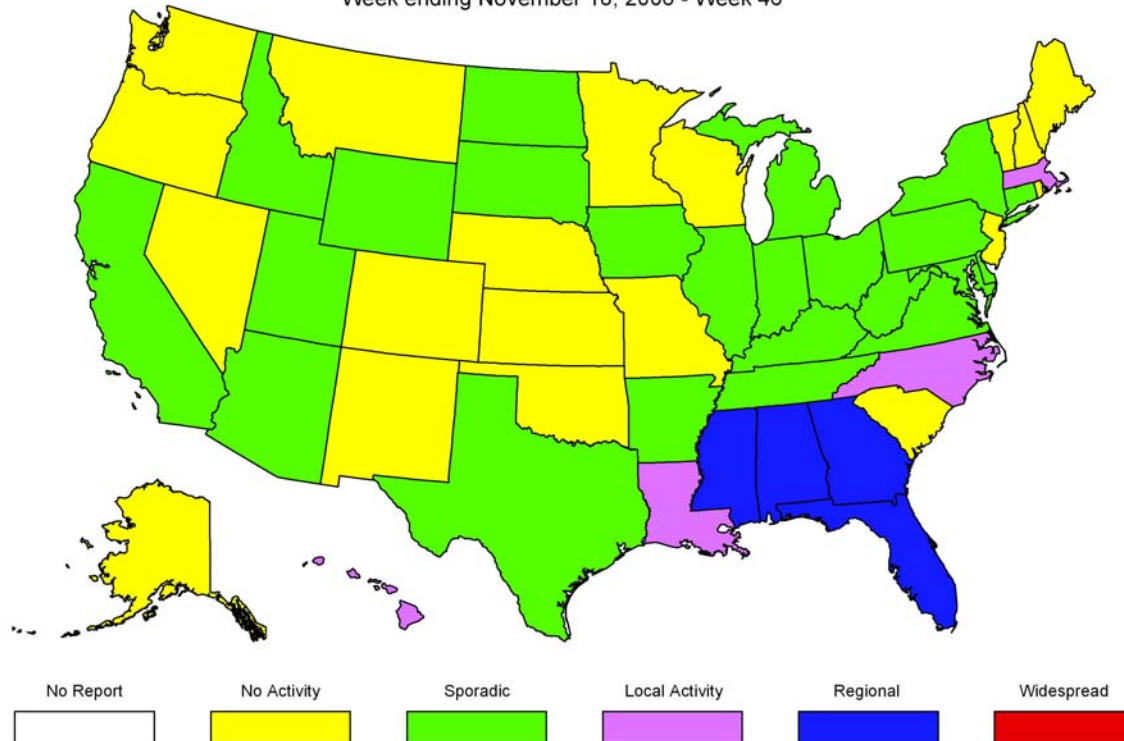
**National (CDC, November 27):** During week 46 (November 12 – November 18, 2006), a low level of influenza activity was reported in the United States. WHO and NREVSS laboratories reported 2,135 specimens tested for influenza viruses, 68 of which were positive: six influenza A (H1) viruses, 54 influenza A viruses that were not subtyped, and 8 influenza B viruses. The proportion of patient visits to sentinel providers for influenza-like illness (ILI) and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. Four states reported regional influenza activity; four states reported local influenza activity; 23 states, the District of Columbia, and New York City reported sporadic influenza activity; and 19 states reported no influenza activity. No cases of influenza-related pediatric mortality have been reported nationwide.

Since October 1, 2006, WHO and NREVSS laboratories have tested a total of 15,707 specimens for influenza viruses and 477 (3.0%) were positive. Among the 477 influenza viruses, 382 (80.1%) were influenza A viruses and 95 (19.9%) were influenza B viruses. Ninety-seven (25.4%) of the 382 influenza A viruses have been subtyped: 90 (92.8%) were influenza A (H1) viruses and 7 (7.2%) were influenza A (H3) viruses. Of the 477 influenza viruses reported this season, 308 (64.6%) have been reported from Florida.

To access the CDC weekly surveillance report throughout the influenza season, visit <http://www.cdc.gov/flu/weekly/fluactivity.htm>.

## Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists

Week ending November 18, 2006 - Week 46



**International (WHO, as of November 14):** During weeks 41–44, overall influenza activity remained low in both hemispheres. Madagascar reported localized influenza A(H3N2) activity between weeks 41 and 43. During weeks 41–44, low influenza activity was reported in Argentina (A and B), Australia (A), Brazil (B), Hong Kong, Special Administrative Region of China (H1, H3 and B), Mexico (H1 and H3), Mongolia, New Caledonia (H3), the Russian Federation (H1, H3 and B), Sweden (H3), the United Kingdom (B) and the United States (H1, H3 and B). Belarus, Czech, Denmark, France, Greece, Latvia, Norway, Philippines, Poland, Portugal, Romania, Slovenia, Spain, Tunisia and Ukraine reported no influenza activity.

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MDCH reported **SPORADIC** to the CDC for this past week ending November 18, 2006.

### End of Seasonal Report

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## Avian Influenza Activity

**WHO Pandemic Phase:** Phase 3 - Human infection(s) with a new subtype, but no human-to-human spread or rare instances of spread to a close contact.

**International (WHO, November 29):** The Ministry of Health in Indonesia has confirmed the country's 57th death from H5N1 avian influenza. The 35-year-old female, whose infection was announced on November 13<sup>th</sup>, died early in the morning on November 28<sup>th</sup> in the hospital. Of the 74 cases confirmed to date in Indonesia, 57 have been fatal.

**Reuters, November 25:** South Korea said on 11/25 that a poultry farm had been hit by bird flu, saying it found the H5N1 strain of avian influenza in the country's 1st outbreak in 3 years of the virus. The agriculture ministry said earlier this week it suspected that a highly virulent strain of bird flu killed 6000 chickens at a farm in the southwest part of the country that lies on a path for migratory birds.

"It is the H5N1 strain," the agriculture ministry official said by telephone of test results. It was too early to say whether the strain found at the farm was highly pathogenic, he added. The remaining 6000 or so poultry at the farm in North Cholla province have been culled, South Korean news reports said.

Between December 2003 and March 2004, about 400,000 poultry at South Korean farms were infected by the H5N1 virus. During that outbreak, the country culled 5.3 million birds and spent about 1.5 trillion won [USD 161 million] to prevent the disease spreading, officials said.

**National Wild Bird Surveillance (USDA, November 17, 20, 29):** Confirmatory testing was unable to isolate any avian influenza viruses on mallard duck samples from Niagara Co., NY (submitted 10/21), mallard duck samples from Grundy Co., IL (submitted 10/28), and Northern Shoveler samples from Stanley Co., SD (submitted 11/4).

A hunter-killed green-winged teal from Sussex Co., DE has preliminarily tested positive for the H5 and N1 low-pathogenic "North American" subtypes of avian influenza virus. These birds were tested by the Delaware Department of Natural Resources in conjunction with USDA on 10/27. Confirmatory testing is currently underway.

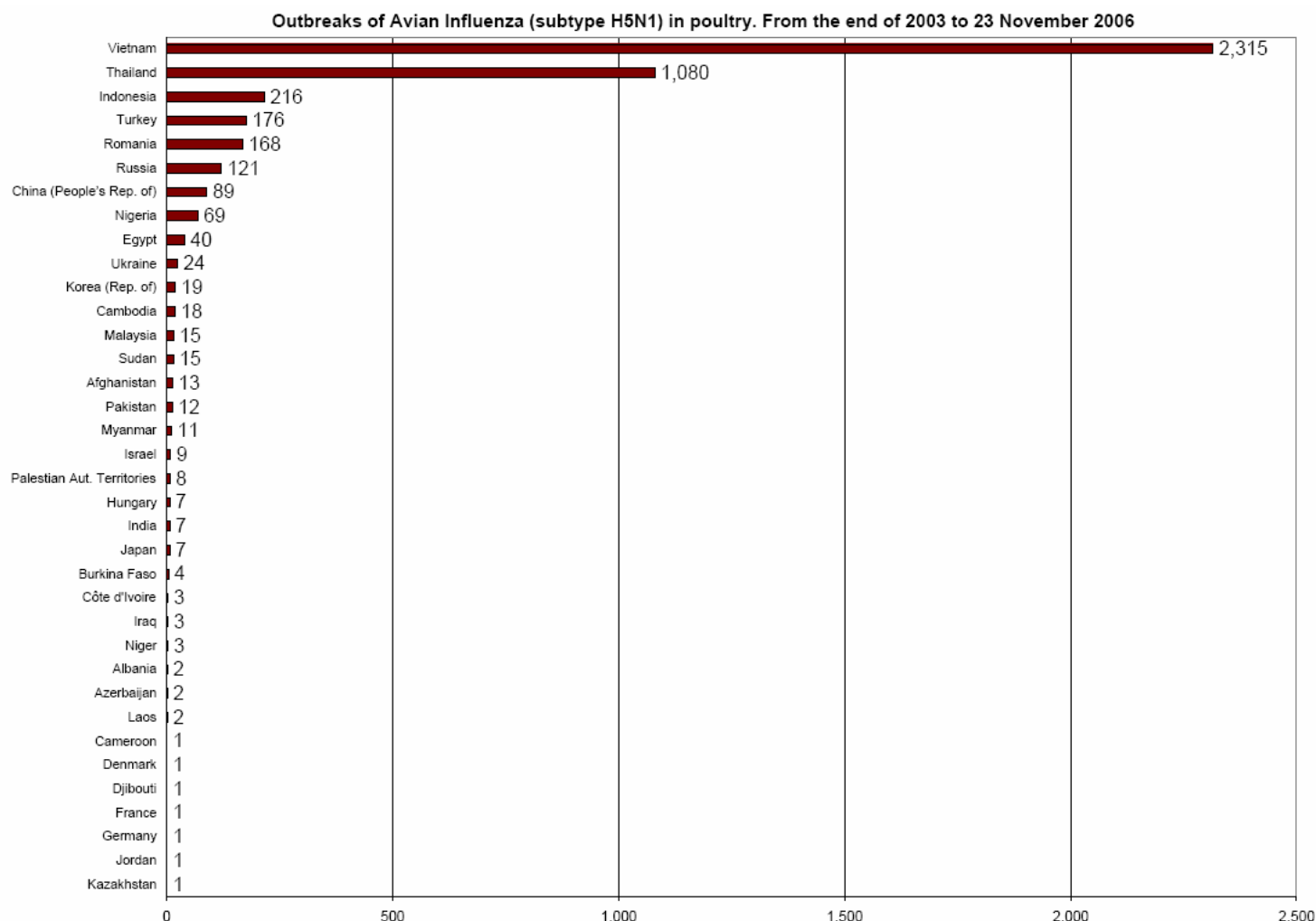
Because these LPAI H5N1 detections are common and pose no threat to human health, USDA and DOI are transitioning to a new method of notifying the public. DOI will maintain a list of all such routine detections as part of the National Highly Pathogenic Avian Influenza Early Detection Data System. The low path H5N1 detection list can be accessed at <http://wildlifedisease.nbj.gov/ai/LPAITable.pdf>. A link also will be available on USDA's avian influenza Web page at <http://www.usda.gov/birdflu>. In the event of a presumptive H5N1 test result involving a large number of sick or dead birds, or other circumstances that suggest the possibility of a highly pathogenic virus, USDA and DOI will issue a news release or conduct a technical briefing to notify the media and the public.

**Michigan Wild Bird Surveillance (USDA, November 20):** Confirmatory testing on mallard duck samples from St. Clair Co., MI (submitted 10/19) was positive for the low pathogenic "North American" strain of avian influenza H5N1. This is the same strain that was found in Monroe County and is not related to the highly pathogenic "Asian" H5N1 strain of avian influenza.

According to the National HPAI Early Detection Data System website, available at <http://wildlifedisease.nbj.gov/ai/>, Michigan has results for a total of 1045 wild birds submitted for testing as of November 29. 338 of these birds were live-captured and tested, 469 were hunter-killed, 113 were sentinel animals, and 125 were dead birds that were submitted for testing. HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 46,250 birds tested nationwide.

To learn about avian influenza surveillance in Michigan wild birds or to report dead waterfowl, go to Michigan's Emerging Disease website at <http://www.michigan.gov/emergingdiseases>.

**Please contact Susan Vagasky at [VagaskyS@Michigan.gov](mailto:VagaskyS@Michigan.gov) with any questions regarding this newsletter or to be added to the weekly electronic mailing list.**

**Table 1. H5N1 Influenza in Poultry (Outbreaks up to November 23, 2006)**(Source: [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm) Downloaded 11/27/2006)**Table 2. H5N1 Influenza in Humans (Cases up to November 29, 2006)**

(http://www.who.int/entity/csr/disease/avian\_influenza/country/cases\_table\_2006\_06\_06/en/index.html Downloaded 11/30/2006)

Cumulative number of confirmed human cases of Avian Influenza A(H5N1) reported to WHO. The total number of cases includes number of deaths. WHO only reports laboratory-confirmed cases.

Country	2003		2004		2005		2006		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	8	5
Cambodia	0	0	0	0	4	4	2	2	6	6
China	1	1	0	0	8	5	12	8	21	14
Djibouti	0	0	0	0	0	0	1	0	1	0
Egypt	0	0	0	0	0	0	15	7	15	7
Indonesia	0	0	0	0	19	12	55	45	74	57
Iraq	0	0	0	0	0	0	3	2	3	2
Thailand	0	0	17	12	5	2	3	3	25	17
Turkey	0	0	0	0	0	0	12	4	12	4
Viet Nam	3	3	29	20	61	19	0	0	93	42
Total	4	4	46	32	97	42	111	76	258	154